



**An Archaeological Survey of the Solana Ridge Tract, South
San Antonio, Bexar County, Texas**

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**FROST GEOSCIENCES
Helotes, Texas**

By

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San Antonio, Texas**

Harry J. Shafer and Thomas R. Hester



**Report No. 83
Abasolo Archaeological Consultants
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Abstract

Abasolo Archaeological Consultants (AAC) conducted a Phase I archaeological survey on 250 acres that remain undeveloped on the Solana Ridge property, south San Antonio, Bexar County, Texas. Solana Ridge is a D.R. Horton development that is nearly 50% complete with streets, houses, and an activity center. The property surrounding the existing development was the subject of this archaeological survey. The surface across much of the property is littered with Uvalde Gravels. Evidence of occasional exploitation of high quality chert for chipped stone tool in the prehistoric past was observed in the form of an occasional flake, core, or biface. One concentrated area of chipping debris consisting of flakes, cores, and biface discards, and measuring approximately 100 meters in diameter, was designated as site 41BX1820. This concentration was on the crest and southern slopes of the highest hill on the property overlooking the Medio Creek valley. The cultural material was restricted to the surface and no temporally diagnostic artifacts were observed. No further archaeological work is recommended.

Introduction and Background

Abasolo Archaeological Consultants (AAC), conducted a Phase I archaeological survey of 250 acres within the Solana Ridge property, south San Antonio, Bexar County, Texas (Figs. 1 and 2). The work was performed in August, 2009 by the authors and T.G. Bey of Frost GeoSciences. The Solana Ridge development abuts Loop 410 on the east and Ray Ellison Boulevard on the north in south San Antonio. The location of the project lies in former pasture that is drained by northern tributaries of Medio Creek. This is private property which appears to have been cleared long ago for cultivation and subsequently used for stock-raising. The property that has not been developed is covered with invader species.

Solana Ridge development overlooks the Medio Creek valley in the Blackland prairie south of San Antonio on the Gulf Coastal Plain. The topography generally slopes to the southwest and consists of low hills formed by erosion of the upland prairie as the Medio Creek valley formed through time. The underlying geological formations are Cretaceous age Taylor marl on the northern half of the property and the Midway Group on the southern half (Fig. 3) (Arnow 1959). Soils belong to the Houston Black gravelly clay (Taylor et al. 1991). The higher elevations are designated as HuC and HuD, with the latter characterized by extensive Uvalde Grave outcrops. On the east and west sides of tract, HuB soils are present, and would have been suitable for limited cultivation (Fig. 4). Surface exposures (Fig. 5A), vertical cuts provided by a gully in the northwest section of the property (Fig. 5B), and a trench just outside the west property line (Fig. 6A, B) illustrate why the Houston Black is classified as a gravelly clay.

Almost half of the 417 acre tract has been developed with streets, occupied houses, and an active suburb community (Fig. 2). The acreage surrounded the developed property and a unit on top of the highest hill on the tract has not been developed and currently supports native vegetation consisting of often dense white brush thickets {"impassable to everything except feral hogs," TAREU 2000) and spiny hackberry (*granjeno*), mesquite, cacti, and yuccas intermixed with open patches of bare ground (Fig. 7A, B). Wills (1999) provides more data on vegetation in this area of Bexar County. Ground visibility was excellent due, in part, to the severe drought occurring in the summer of 2009. Navigating through the stands of dense underbrush was, however, a thorny issue at times.

Fieldwork was aimed at a 100% pedestrian survey of the 250 acres. The work was carried out in accordance with the "Archeological Survey Standards for Texas" to insure that no archaeological or historical resources eligible for nomination to the National Register of Historic Places are damaged or destroyed due to the planned construction.

Archaeological Background

The nature of historic and prehistoric cultural resources in southern Bexar County is poorly known, especially when compared to intensive studies done across large parts of northern San Antonio. While the archaeological record of southeastern Bexar County fits into the regional cultural framework extending back at least 11,200 years (e.g., McGraw and Hinds

1987; Hester 2004), only a relatively small number of archaeological sites have been documented in the area. Previous archaeological surveys, including those by AAC (e.g., Hester and Shafer 2006; Shafer 2005; Shafer and Hester 2004a; 2004b; 2006) have documented prehistoric Native American campsites as well as areas of lithic resource exploitation in the Blackland prairie. Most campsites are located along the major streams, while lithic procurement sites occur in the uplands along minor streams. There is a moderate to high probability that one of these types of sites will occur in the survey area. Lithic procurement types of sites and localities are marked by debris from stone tool manufacture, and often spent tools. While lithic resource sites are anticipated within the project area, there is a low potential for a prehistoric campsites. Campsites can be identified by the presence of concentrated areas of hearthstones (fire-cracked rock), chipped stone manufacturing debris, and discarded tools.

The Solana Ridge project area overlooks the Medio Creek valley to the west. A fair amount of archaeological work has been done along this drainage, including a survey by McGraw (1977) that recorded 15 sites upstream, in an area north of Highway 90. On the Medina Base Annex across from the project area, surveys have been done by the Center for Archaeological Research, The University of Texas at San Antonio (Nickels et al. 1997). Notable sites nearest to Solana Ridge include 41BX1091, described as a "lithic quarry" and very similar to site 41BX1820 at Solana Ridge, as reported below.

Two other sites in the eastern part of the Medina Base Annex are also reported as "lithic quarries" (41BX1089, 41BX1088). Three "open campsites" were also recorded, marked by flakes and burned rock, but no diagnostic artifacts (Texas Archeological Site Atlas). Only a half-mile south of the Solana Ridge southern boundary, Shafer and Hester (2005) carried out an archaeological survey of the Carmona Hills property.

Further south of the project area, on the east side of Medio Creek and the near intersection of Loop 410 and IH 35, archaeologists from the Fort Worth District, U.S. Army Corps of Engineers, recorded site 41BX1131 (Texas Archeological Site Atlas). It is worthy of special note since it is in the same type of upland setting as Solana Ridge. The site was described as a prehistoric occupation, of unknown age, with stone tool debris and fire-cracked rocks.

Survey Findings

Our survey found that the surface throughout most of the property was littered with Uvalde Gravels (Figs. 5 and 6), a Pliocene phenomenon that left deposits of gravel composed mostly of chert with some admixture of chalcedony and quartzite, associated with the upland prairie soils east and south of the Balcones Escarpment (Byrd 1971). The composition of the gravels is dependent, in part, on the composition of the harder rocks in donor formations, in this case, it was primarily chert from the eroded facies of the Edwards Plateau, but rocks of more distant origin, such as quartzite and orthoquartzite can occur.

The highest knoll on the property contained the highest density of quarry refuse, so dense in fact that this was given site number. A TexSite form was submitted to obtain a state trinomial designation for the site. The trinomial designation for the site is 41BX1820.

41BX1820

Site 41BX1820 is a quarry site, or resource procurement area, located in Unit 9 of the D. R. Horton Solana Ridge development. The site area covers at least two acres on top of the knoll and extended down the south and southwest sides. The vegetation cover at the site consist of the thorny brush and cacti previous described with bare patches of exposed Uvalde Gravels (Fig. 8A). The full extent of the site is arbitrary as it was defined on the basis of density of cores and flakes; the density decreased on the slopes of the knoll defined the extent, but previous development prevented us from accurately defining the full extent of the site.

The surface in the site area contains a dense scatter of Uvalde Gravels with chert flakes, cores, and an occasional early stage biface failure (Fig. 10). No diagnostic artifacts were noted within the site area to provide an indication of chronological time it was exploited, but the proximal end of a Guadalupe Biface (Turner and Hester 1993:256) was observed (Fig. 10 third from left).

Isolated Finds

Exposures of Uvalde Gravels were extensive throughout the project area, but were especially so in the northern, central, and southwestern portions. Sizes of the chert nodules varied as did the quality. Prehistoric utilization of the gravels was observed in the northern, central, and southwestern areas in the form of isolated finds of cortex or secondary cortex flake removed by hard-hammer percussion (Fig. 8A), cores from which several flakes were struck (Fig. 8B, C), and cobbles tested for quality (Fig. 8D). Figure 1 shows areas in which isolated finds were more concentrated. Bifaces exhibiting early stage reduction were observed during the survey (Fig. 9A-C), indicating that ancient flintknappers utilized the exposures as quarry areas and on-site blank manufacture. Blanks are early stage bifaces that can be shaped into any number of formal tools. An occasional pent tool or tool fragment was also observed (Figs. 11 and 12).

Summary and Recommendations

An archaeological survey of 250 acres of undeveloped property has been carried out at Solana Ridge, a development by D. R. Horton. Though there are recent stock tanks, there is no dependable water source except, perhaps, for a small section Medio Creek in the southwest corner. The area has likely been cleared in the past, perhaps for farming and ranching. After clearing, and later, when fields or pastures were abandoned, thickets of second-growth plants have choked much of this part of the Solana Ridge property. Most notable is white brush, spiny hackberry, and mesquite. As described in this report, Uvalde Gravel deposits, containing nodules of various sizes, were characteristic of exposed surfaces. Occasional indications of ancient lithic procurement activity were noted, in the form of large cortex flakes and crudely shaped, unfinished biface blanks. This is a pattern common in this part of Bexar County (see Shafer and Hester 2005). At the highest elevation on the Solana Ridge development, a small hill or knoll rising to 820 feet above sea level, a distinct concentration of stone-chipping debris was found. This has been designated as Site 41BX1820. Excavations or detailed surface mapping of the site would add nothing new or significant to the regional archaeological record.

Enough of the landscape along the Medio Creek valley has been sampled archaeologically combined with the Carmona Hills development immediately to the south (Shafer and Hester 2006) to assess with the archaeological potential of the Medio Creek upland margins. Prehistoric utilization of the Uvalde Gravels along the valley wall can be anticipated. Rare broken tools (proximal end of broken adzes) also signify exploitation of resources other than for raw material. The only possible diagnostic artifact found was the proximal end of a Guadalupe tool, an Early Archaic adze style. Presumably the chert and other natural resources were intermittently used throughout prehistory. People undoubtedly passed over these hills off and on for nearly 10,000 years.

The archaeological significance of this lithic resource zone is very low and does not merit further archaeological attention. While it is important to note any evidence of prehistoric utilization, the research potential is negligible. The only area along the Medio Creek Valley that should garner archaeological attention is within the valley itself and on elevated landforms immediately bordering the valley. Medio Creek presently is intermittent, but may have had a constant flow during mesic intervals.

Site 41BX1820 is a prehistory quarry or resource procurement site where Uvalde Gravel chert was tested for quality and high quality cores were acquired for the production of stone tools. The gravels occur in Houston black clay. There is no stratigraphic integrity to the cultural material, and the site has low potential for future research. **No further archaeological investigations are necessary at this site or on the Solana Hills Development.**

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Figures

IMAGE RESTRICTED



Figure 1. Topographic map and plan map of the Solana Ridge development supplied by Frost GeoSciences. Diamond symbols signify locations of isolated finds, and the location of site 41BX1820 is shown within the dashed line.

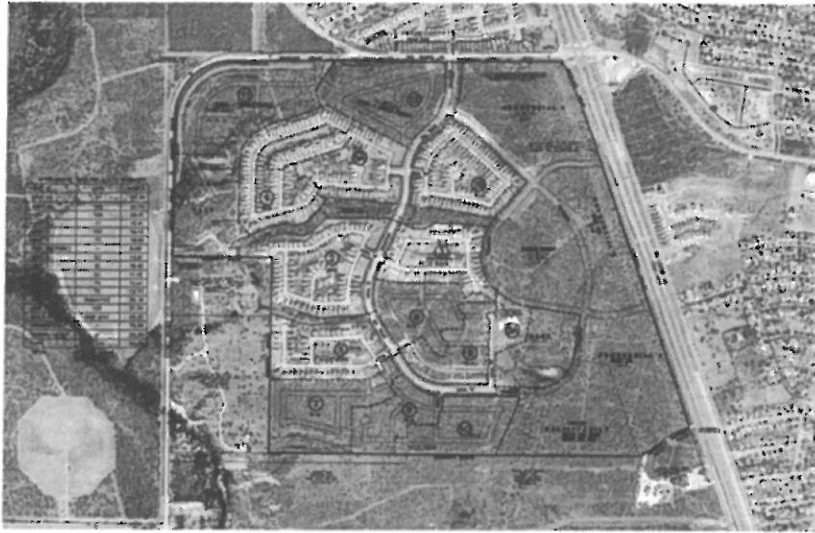


Figure 2. Aerial view of the Salono Ridge Development, south San Antonio, Texas. Image provided by Frost GeoSciences.



Figure 3. Geology map of the Solana Ridge Development area with the project location superimposed. Map is provided by Frost GeoSciences



Figure 4. General soils map of the Solana Ridge Development showing the dominated Houston black clay gravelly soils. Map provided by Frost GeoSciences.



A



B

Figure 5. A, Surface concentration of Uvalde Gravels in the northern portion of the Solana Ridge Development property; B, soil profile in a gully face in the northwestern part of the property. Note the gravelly Houston black clay topsoil.



A



B

Figure 6. A, exposed trench west of the property line illustrating Houston black clay gravelly soil. B, view in the same trench showing the density of Uvalde Gravels in the Houston black clay soil.

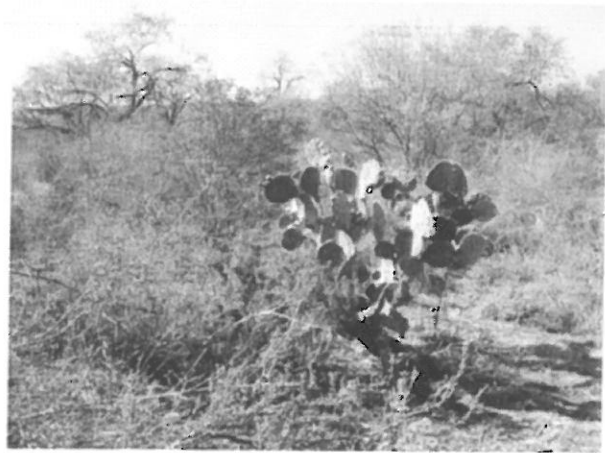
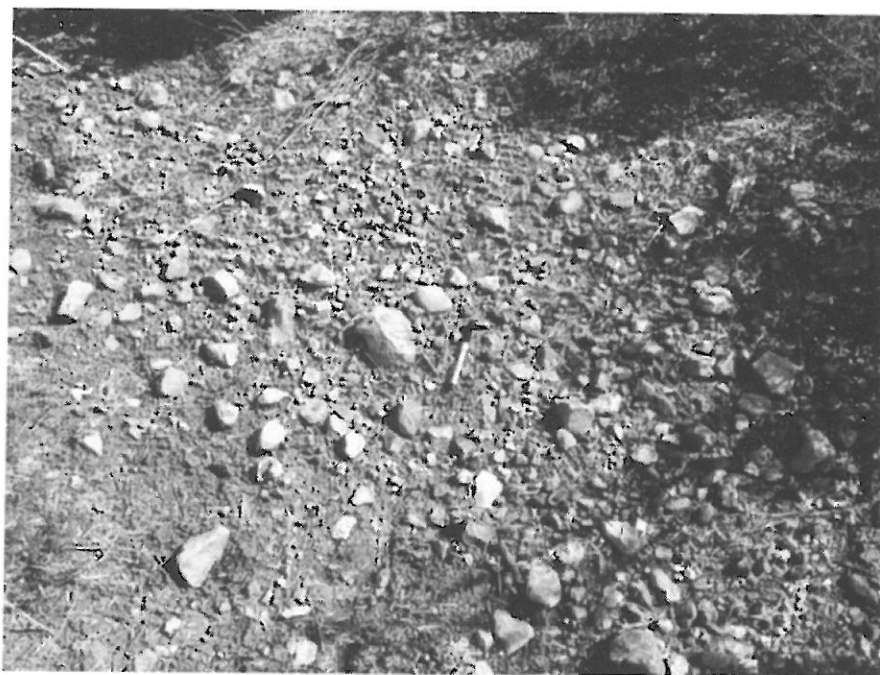


Figure 7. Views of the property showing typical south Texas thorny brush and cacti ground cover.



A



B

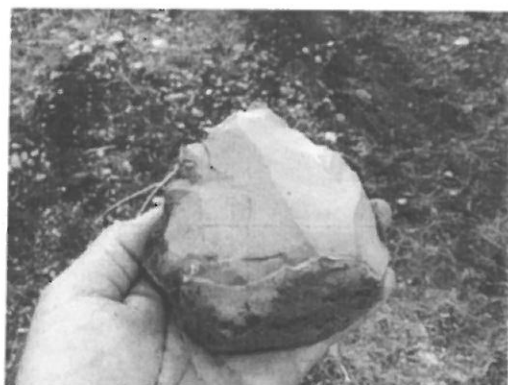
Figure 8. 41BX1820. A, view of the site that shows vegetation cover. B, Exposed Uvalde Gravels and chipped stone debitage.



A



B



C



D

Figure 9. Isolated Finds. A, hard-hammer cortex flake, B, C, cores, D, tested cobble.



Figure 10. Biface blank rejects. Left: Isolated find; center and right: SR-1 surface.



Figure 11. Tools and tool fragments. Broken axe or celt isolated find; proximal end of celt or adze isolated find; C, distal end of Guadalupe tool from SR-1; D, pointed uniface tool isolated find.



Figure 12. Isolated find. Expedient chipped stone axe with distal battering.